



Climate and prevalence of atopic eczema in 6- to 7-year-old school children in Spain. ISAAC phase III

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Year: 2008

Journal: International Journal of Biometeorology. 52 (8): 833-840

Abstract:

Atopic eczema (AE) is a chronic skin disease. Recent reports indicate that the worldwide prevalence of AE is increasing and that various environmental factors are implicated in its aetiology. Climatic conditions have been related with AE prevalence, and Spain has varying climatic conditions. The aim of this study is to document the possible climatic influence on the prevalence of AE in schoolchildren aged 6-7 years in three different climatic regions in Spain. We conducted a cross-sectional population-based survey of 28,394 schoolchildren aged 6-7 years from 10 Spanish centres in three different climatic regions. The mean participation rate was 76.5%. AE prevalence was assessed using the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire and the Spanish Academy of Dermatology criteria used in Spain to diagnose AE. The data, including annual temperature, precipitation, relative humidity and the annual number of sunny hours per climatic region, were obtained from the Spanish National Institute of Meteorology. Different AE prevalences were found in all three climatic regions studied: Atlantic, 32.9; Mediterranean 28.3; and Continental 31.2 per 100 children studied ($p < 0.005$). AE was positively associated with precipitation and humidity, and was negatively associated with temperature and the number of sunny hours. The results show that AE is significantly dependent on meteorological conditions.

Source: <http://dx.doi.org/10.1007/s00484-008-0177-0>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Precipitation, Solar Radiation, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal

Geographic Location:

Climate Change and Human Health Literature Portal

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Spain

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Dermatological Effect

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Children

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified